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## **U.S. NUCLEAR REGULATORY COMMISSION**

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# MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee

1. U. S. Department of Agriculture

Office of Personnel

Safety and Health Management Division
Radiation Safety Stoff Radiation Safety Staff

2. Mailstop 5510

5601 Sunnyside Avenue

Beltsville, Maryland 20705-1500

In accordance with dated

September 24, 1998,

3. License number 19-00915-06 is amended in

its entirety to read as follows:

4. Expiration date May 31, 2005

5. Docket No. 030-06923

Reference No.

6. Byproduct, source, and/or special nuclear material

A. Cesium 137

7. Chemical and/or physical form

A. Sealed sources

(As specified in Attachment for Item 9, to the licensee's application dated October 17,

1994)

8. Maximum amount that licensee may possess at any one time under this license

A. Not to exceed maximum activity per source specified in Attachment for Item 9. of the licensee's application dated

October 17, 1994, and 389,200

curies total

B. Cobalt 60

B. Sealed sources

(As specified in Attachment for Item 9. to the licensee's application dated October 17,

1994)

B. Not to exceed maximum activity per source specified in Attachment for Item 9. of the licensee's application dated

October 17, 1994, and 106,500

curies total

C. Sealed sources

(J.L. Shepherd Model 6810)

C. Eighteen sources, not to exceed 42,000 curies total

## Authorized use:

C. Cesium 137

A. and B. For use in the irradiators specified in Attachment for Item 9. of the licensee's application dated October 17, 1994, for irradiation studies of lower animals, insects, plants, seeds, chemicals and other agricultural products, and insect sterilization.

C. For use in the Husman Model 521 Irradiator, Serial Number 009, only.

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MATERIALS LICENSE

SUPPLEMENTARY SHEET

### **CONDITIONS**

- 10. A. Licensed material shall be used only at the licensee's facilities and locations specified in Attachment for Item 9. of the licensee's application dated October 17, 1994 and other facilities of the licensee anywhere in the United States as authorized by the licensee's Radiation Safety Committee.
- 11. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in letters dated March 10, 1997 and August 6, 1997, and have been designated in writing by the Radiation Safety Officer.
  - B. The Radiation Safety Officer for this license is John T. Jensen.
- 12. Sealed sources containing licensed material shall not be opened.
- 13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed 3 years.
  - B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
  - C. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
  - D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
  - E. Sealed sources and detector cells need not be leak tested if:
    - (i) they contain only hydrogen 3; or
    - (ii) they contain only a gas; or
    - (iii) the half-life of the isotope is 30 days or less; or
    - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or

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- (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
- 14. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Removal, replacement, and disposal of sealed sources in the irradiator shall be performed by a person specifically licensed by the Commission or an Agreement State to perform such services.
- 15. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
- 16. The licensee shall not acquire licensed material in a sealed source or in a device that contains a sealed source unless the source or device has been registered with the Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.
- 17. The procedures contained in the manufacturer's instruction manual for the irradiator authorized by this license shall be followed and a copy of this manual shall be made available to each person using or having responsibility for the use of the device.

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18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.  A. Application dated October 17, 1994 B. Letter dated April 18, 1995 C. Letter dated September 11, 1995 D. Letter dated November 2, 1995 F. Letter dated February 2, 1996 G. Letter dated February 21, 1996 H. Letter dated Hebruary 21, 1996 J. Letter dated August 16, 1996 K. Letter dated September 25, 1996 L. Letter dated September 25, 1996 L. Letter dated March 10, 1997 N. Letter dated August 6, 1997 N. Letter dated August 6, 1997 P. Letter dated August 6, 1997 P. Letter dated August 29, 1997								
Date November 20, 1	008		S. Nuclear Regulatory Sinal signed by Keitl					
Date November 20, 1	<i>300</i>	Keith D. Bi Nucl	ear Materials Safety					
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